



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/647,326	08/26/2003	Jan-Ruei Lin	LINJ3047/EM	2122

23364 7590 11/15/2005

BACON & THOMAS, PLLC
625 SLATERS LANE
FOURTH FLOOR
ALEXANDRIA, VA 22314

EXAMINER

HARRISON, CHANTE E

ART UNIT	PAPER NUMBER
----------	--------------

2677

DATE MAILED: 11/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/647,326

Applicant(s)

LIN ET AL.

Examiner

Chante Harrison

Art Unit

2677

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11, 14, 15, 17, 19 and 21 is/are rejected.
- 7) ☒ Claim(s) 12, 16, 18, 20 and 22 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-11, 14-15, 17, 19 and 21 are rejected under 35 U.S.C. 102(e) as being anticipated by Hajime Washio et al., US 2003/0122773 A1, 7/2003.

As per independent claim 1, Washio discloses a plurality of wiring paths positioned on the panel for dividing the panel into a plurality of banks to be separately driven (i.e. a plurality of scanning signal line drive circuits SD1a and SD1b, which divide signal lines into display sections and are driven individually) (pp. 10, Para 111 & 112); a plurality of control switches connected to the plurality of wiring paths for controlling a plurality of pixel data voltages of a plurality of phases of the panel (pp. 3, Para 40 & 41); and a

Art Unit: 2677

plurality of data line connectors connected to a plurality of data lines of the panel (i.e. shift registers) (Fig. 1 "13"), and the number of the connectors being the same that of the wiring paths (pp. 17, Para 212).

As per dependent claim 2, Washio discloses a plurality of phases are positioned on the panel (i.e. a plurality of data signal lines positioned on the display panel sections) (Fig. 1 "S1"; pp. 2, Para 36).

As per dependent claim 3, Washio discloses the plurality of data line connectors (i.e. shift registers) are parallel to the plurality of wiring paths (Fig. 1 "13").

As per dependent claim 4, Washio discloses a plurality of first switch (i.e. switch of the sampling circuit) connected to the plurality of wiring paths are adjacent to each other and are turned on at the same time (i.e. the signal line drive circuit includes a switch of the sampling circuit and may be driven synchronously) (pp. 3, Para 40; pp. 10, Para 112).

As per dependent claim 5, Washio discloses the plurality of wiring paths and the plurality of data line connectors are positioned on the same side of the panel (Fig. 1 "S1...n" and "13").

Art Unit: 2677

As per dependent claim 6, Washio discloses the plurality of control switches connected to the plurality of wiring paths are sequentially turned on (i.e. successive pulses are supplied to data lines) (pp. 3, Para 42) in opposite directions (Fig. 14).

As per dependent claim 7, Washio discloses the plurality of writing paths and the plurality of data line connectors are positioned on two opposite sides of the panel (i.e. signal line drive circuits SD1 and SD2, and corresponding shift registers are positioned on opposite sides of the display panel, where the line drive circuits may be divided into not less than three circuits) (Fig. 14; pp. 12, Para 130; pp. 12, Para 133).

As per dependent claim 8, Washio discloses the plurality of control switches connected to the plurality of wiring paths on the two opposite sides of the panel are separately connected to the plurality of phases in the panel in an interlaced manner (Fig. 14; pp. 4, Para 50).

As per dependent claim 9, the rationale as applied in the rejections of claims 5 and 6 applies herein.

As per dependent claim 10, Washio disclose the plurality of control switches connected to the plurality of wiring path on the two opposite sides of the panel are turned on in the same direction (i.e. successive pulses are supplied to data lines and scan drive sections are activated at the same time) (Fig. 14; pp. 3, Para 42; pp. 9, Para 107; Fig. 14).

As per independent claim 11, Washio discloses a plurality of wiring paths being a first wiring path, a second wiring path, a third wiring path and a fourth wiring path positioned on the same side of the panel (i.e. signal line drive circuit may be divided into not less than three data signal line drive circuits) (pp. 11, Para 130) and separately driven by a plurality of banks (pp. 10, Para 111 & 112). The rationale as applied in the rejection of claim 1 applies herein.

As per dependent claim 14, Washio discloses the plurality of phases connected to and controlled by the last switch of the second wiring path and the last switch of the third wiring path are adjacent to each other, and are turned on at the same time (i.e. successive pulses are supplied to data lines and scan drive sections are activated at the same time) (pp. 3, Para 42; pp. 9, Para 107; Fig. 14).

As per independent claim 15, Washio discloses a plurality of wiring paths being a first wiring path, a second wiring path, a third wiring path and a fourth wiring path evenly positioned on the two sided of the panel (i.e. signal line drive circuits, SD1 and SD2, positioned at the opposite sides of the display panel may be divided into not less than three data signal line drive circuits) (Fig. 14; pp. 11, Para 130; pp. 12, Para 133) and separately driven by a plurality of banks (pp. 10, Para 111 & 112). The rationale as applied in the rejection of claim 1 applies herein.

Art Unit: 2677

As per dependent claim 17, Washio discloses the plurality of phases connected to and controlled by the first switch of the first wiring path and the first switch of the third wiring path are adjacent to each other, and are turned on at the same time (i.e. successive pulses are supplied to data lines and scan drive sections are activated at the same time) (pp. 3, Para 42; pp. 9, Para 107; Fig. 14).

As per independent claim 19, Washio discloses a plurality of wiring paths being a first wiring path, a second wiring path, a third wiring path, a fourth wiring path, a fifth wiring path, a sixth wiring path, a seventh wiring path, and a eighth wiring path, evenly positioned on the two sides of the panel (i.e. SD1 and SD2 signal line drive circuits, which each may be divided into not less than three circuits) (Fig. 14; pp. 11, Para 130; pp. 12, Para 133) and separately driven by a plurality of banks (pp. 10, Para 111 & 112). The rationale as applied in the rejection of claim 1 applies herein.

As per dependent claim 21, Washio discloses the plurality of phases connected to and controlled by the first switch of the second wiring path and the first switch of the seventh wiring path are adjacent to each other, and are turned on at the same time (i.e. successive pulses are supplied to data lines and scan drive sections are activated at the same time) (pp. 3, Para 42; pp. 9, Para 107; Fig. 14).

Art Unit: 2677

4. Claims 12, 13, 16, 18, 20 and 22 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chante Harrison whose telephone number is 571-272-7659. The examiner can normally be reached on Monday, Tuesday and Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on 571-272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chante Harrison
Examiner
Art Unit 2677

Ch
November 7, 2005

AMR A. AWAD
PRIMARY EXAMINER
